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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,235	09/24/2003	David C. Benninger	0309-0001	2064
32256 7590 01/26/2007 REED SMITH LLP 3110 FAIRVIEW PARK DRIVE FALLS CHURCH, VA 22042			EXAMINER SCHNEIDER, JOSHUA D	
			ART UNIT 2182	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/668,235

Applicant(s)

BENNINGER, DAVID C.

Examiner

Joshua D. Schneider

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/23/2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 22-35 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant first states that Labview merely discloses a software development tool, and fails to recite any structure for any device. This is not true. Among the teachings of Labview is the interconnection of data acquisition hardware (see chapter 3) and instrumentation hardware (see chapter 4) to the VI (including controllers and signal conditioning). Furthermore, it is inherent to the running of Labview that there is further structure in the form of the computing device that is running the software.
4. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

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applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

5. Applicant argues that Examiner is improperly imputing his own personal knowledge of the present invention into the reference. It is not shown how Examiner's knowledge is being drawn into the reference. The current claim remains very broad in scope, and as such would read on many current implementations of Labview processes and devices. Examiner's knowledge of the use of Labview in industry and academia cannot be denied and is certainly being drawn upon, but does not make the teachings of the Labview reference any less relevant in determining the patentability of these claims. Taking in signals and conditioning them for a controller is simply an extremely well known operation, as Applicants admitted prior art suggests. Given the expansive definitions of many of the terms that applicant cites as not being taught it is extremely unclear how Applicant can assert that Labview fails to show or even suggest any of the features of the present invention. The dismissive and undirected arguments are not persuasive.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 22-33 and 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labview by National Instruments in further view of U.S. Patent Application Publication 2003/0074489 to Steger et al.

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8. With regards to claims 22, 26, 30, and 39, Labview teaches at least one legacy device subsystem that includes at least one legacy I/O device which generates discrete output signals of a predetermined format is different from a predetermined format of discrete output signals from another legacy I/O device (discrete digital or analog inputs from any type of source, pages 3-1 through 3-10, see also signals from instrumentation devices 4-1 through 4-10); at least one legacy controller operatively connected to receive the discrete output signals from the at least one legacy subsystem and to output control signals to the at least one legacy subsystem (Labview program, pages 2-1 through 2-16); an integrated signal conditioning circuit operatively connected between the at least one legacy subsystem and the at least one legacy controller so as to condition at least one of the output signals of different formats into said predetermined format and control signals being communicated there between the at least one legacy subsystem and the corresponding legacy controller (Labview functions, pages 2-1 through 2-16); and a modern controller operatively connected to control operation of the integrated signal conditioning circuit so as to control the conditioning of at least one of the output signals of different formats and the control signals being communicated there through, and to control operation of the at least one legacy controller (host computer running Labview program). Steger also teaches at least one legacy device subsystem that includes at least one legacy I/O device which generates discrete output signals of a predetermined format is different from a predetermined format of discrete output signals from another legacy I/O device (Fig. 4B, element 310); at least one legacy controller operatively connected to receive the discrete output signals from the at least one legacy subsystem and to output control signals to the at least one legacy subsystem (Labview program, Fig. 4B, through element 316)); an integrated signal conditioning circuit operatively

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connected between the at least one legacy subsystem and the at least one legacy controller so as to condition at least one of the output signals of different formats into said predetermined format and control signals being communicated there between the at least one legacy subsystem and the corresponding legacy controller (Fig. 4B, elements 302 and 308); and a modern controller operatively connected to control operation of the integrated signal conditioning circuit so as to control the conditioning of at least one of the output signals of different formats and the control signals being communicated there through, and to control operation of the at least one legacy controller (Fig. 4B, controller computer with Labview connected to control and program elements 307 and 314). It would have been obvious to one of ordinary skill in the art at the time of invention to use the Labview program to implement a control system as taught by Sterger in order to customize signal conditioning and control functions without increasing cost dramatically by using commercially available software and hardware.

9. With regards to claims 23, 27, and 31, Labview teaches at least one I/O circuit operatively connected between the at least one legacy device and the at least one legacy controller so as to process the output signals and control signals communicated there between (discrete digital inputs from any type of source, pages 3-1 through 3-10).

10. With regards to claims 24, 28, 32, and 40, Labview teaches the integrated signal conditioning circuit is formed to, in response to the master controller, at least one of monitor or interrupt the output signals from the at least one legacy device to the at least one legacy controller (Labview monitoring and alarm functions, pages 2-1 through 2-16); and pass-through or override the control signals from the at least one legacy controller to the at least one legacy

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device (Labview control output functions with pass through to output functions, pages 3-1 through 3-10).

11. With regards to claims 25, 29, 33, and 41, Labview teaches a plurality of legacy devices each generating discrete output signals (discrete digital inputs from any type of source, pages 3-1 through 3-10); a plurality of legacy controllers each operatively connected to receive the discrete output signals from and to output control signals to a corresponding one of the plurality of legacy devices (Labview program VI's, pages 2-1 through 2-16); and a plurality of an integrated signal conditioning circuits operatively connected between corresponding ones of the plurality of legacy devices and legacy controllers so as to condition at least one of the output signals and control signals being communicated there between (Labview functions, pages 2-1 through 2-16).

12. With regards to claims 36-38 and 42, Steger teaches a step of connecting the legacy subsystems with the modem controller via a network (see Fig. 1B, element 104). It would have been obvious to one of ordinary skill in the art at the time of invention to use the Labview program to implement a control system as taught by Steger in order to customize signal conditioning and control functions without increasing cost dramatically by using commercially available software and hardware.

13. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labview by National Instruments, U.S. Patent Application Publication 2003/0074489 to Steger et al., in further view of U.S. Patent 6,513,068 to Jones et al.

14. With regards to claim 34 and 35, Labview and Steger do not specifically teach being applicable to mail sortation systems. However, Jones teaches that Labview is a well known and powerful tool used in a wide variety of industrial and research applications including industrial

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control and automation (column 6, lines 45-54). It would have been obvious to one of ordinary skill in the art at the time of invention to use the Labview program to automate an industrial mail sortation system in order to customized signal conditioning and control functions without increasing cost dramatically by using commercially available software and hardware.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication 2005/0102199 to Lee teaches a Labview based product configuration system that utilizes Labview based signal conditioning of incoming signals. U.S. Patent 6,715,139 to Kodosky et al. teaches a Labview based process data retrieval system that utilizes Labview based signal conditioning of incoming signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS



KIM HUYNH
SUPERVISORY PATENT EXAMINER

1/22/09